NEW JERSEY DEPARTMENT OF TRANSPORTATION

MEMORANDUM

TO:

All Personnel Concerned

FROM:

Robert K. Suess, Chief Robert K. Suesa

Bureau of Roadway Plans and Specifications

DATE:

February 7, 1994

PHONE:

530-2574

SUBJECT: Construction Contingencies

94003, APC

Reference: Memorandum to All Design Units entitled "Construction Contingencies",

94002 ADU, dated February 4, 1994

The following information and attachments shall be used as a guide by all property involved in the preparation of Engineer's Estimate Summary Sheets and Department Action Slips (AD-12) for Federal projects.

This Memorandum provides the format and sample calculations for including Construction Contingency amounts in Federal projects or the Federal portion of 100% State Projects. Contingency amounts shall be determined as directed in the referenced All Design Units Memorandum.

Construction Contingencies shall be calculated prior to bids based on the estimated contract amount. This amount shall be shown on the AO-12 request to advertise. Subsequent to bids, Construction Contingencies shall be recalculated based on the apparent low bid.

The revised Construction Contingency amount shall be included in the Bid Analysis Memorandum (See attachment No. 5). A copy of the original memo shall immediately be sent to Mr. J. Isler of the Bureau of Construction Services. The Bureau of Construction Services will then include the revised Construction Contingency amount on the AD-12 when processing the request for award of project. The original Bid Analysis shall be retained by the preparer until the Award Package has been received.

The Engineer's Estimate Summary Sheet and Department Action Slip shall be as shown on attachments 1 through 4.

Attachment No. 1 provides the format to be used for Federally Participating Projects.

Attachment No. 2 provides the format to be used for projects with multiple funding sources. (This example contains State and Federal funding).

Attachment No. 3 provides the format to be used when it is known that a Change of Plan will be imminent. The cost of the anticipated Change of Plan plus the Contingency amount determined from the scale shall be shown as the total Construction Contingency Cost.

Attachment No. 4 provides the format to be used for a project with more than one federal project number.

It should be noted that the italicized print on attachments I through 4 represent revisions to the Engineer's Estimate Summary Sheet as a result of the addition of Construction Contingencies.

Department Action Slips (AD-12) and sample calculations for each AD-12 have also be a included. Calculations provided with the AD-12's are for informational purposes only and are <u>not</u> to be shown on the AD-12.

- (: K. Afferton, C. Takacs, R. Pege, H. Capers, M. Lemmo, M. Kjetsaa,
 - I. B. Senyk, F. Battaglia, A. Kuchtyak, C. Rebbeck, M. Cronin,
 - f. Cocchiola, C. Combs, R. Hansbury, B. Cook, S. Alu, R. Delaney,
 - W. Dixon, F. Pinto, J. Fasanella, A. Fischer, Y. Kim, G. Cliver,
 - B. Shah, K. Shelat, A. Krawtschenko, J. Mycock, M. Patel, G. Nicholl,
 - D. Piscopo, S. Patel, M. Ritualo, J. Wincek, K. Zummo, M. DiBenedetti,
 - J. Yeager, J. Willey, R. Farese, C. Miller

RKS:SA:ab

94003 APC

RDUTE 80 SECTION 3A FEDERAL PROJECT NUMBER STP-000S(001) SUMMARY

Α.	RAW COST PARTICIPATING ITEMS (ROADWAY & BRIDGE ITEMS) FEDERAL PROJECT NUMBER STP-000S(001)	=	\$1,500,000.00
В.	CONTRACT CONSTRUCTION ENGINEERING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	20,000.00
C.	TOTAL NON-PARTICIPATING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	3,000.00
D.	TOTAL CONTRACT ITEMS (A+B+C) FEDERAL PROJECT NUMBER STP-000S(001)	=	1,523,000.00
E.	TOTAL NON-CONTRACT CONSTRUCTION ENGINEERING (10% OF A) FEDERAL PROJECT NUMBER STP-000S(001)	==	150,000.00
E1.	PARTICIPATING CONSTRUCTION CONTINGENCIES (FROM CONTINGENCY CHART)	=	45,000.00
F.	ESTIMATED FEDERALLY PARTICIPATING COST (A+B+E+E1) FEDERAL PROJECT NUMBER STP-000S(001)	=	1,735,000.00
G.	ESTIMATED PROJECT COST (C+F) FEDERAL PROJECT NUMBER STP-000S(001)	=	\$1,738,000.00
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NEW JERSEY DEPARTMENT OF TRANSPORTATION ATTACHMENT NO. 1A

HEN SERSET DEFACEMENT OF TRANSFORTATION
DEPARTMENT ACTION SLIP

Project-Subject

De

Route 80. Section 3A ADVERTISEMENT December 3, 1993 JOB NO. DESIGN 8711-142 JOB NO. CONSTRUCTION D.P. #

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Approval is hereby requested of the Plans and Specifications and also the authority to advertise subject Project after concurrence of the Federal Highway Administration.

Approval of Commission Action will establish construction contingencies in the amount of Federal Participating = \$65,000.

ESTIMATED CONTRACT AMOUNT = \$1,523,000. ESTIMATED CONTINGENCY AMOUNT = 65,000. TOTAL AMOUNT = \$1,588,000.

Check If Consultant Agreement

UTE.	SECTIONS	DESCRIPTION							
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Year & Item No.	I . Construction Program	A	ppropriation Acco	unt No. (s)			Job No. ((s)	Budget Code (s)
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	Date	- COMMISSIONER OF TRANSPORTATION
		Schedule19
	Date	Action Certified
ROVED BY:	•	
	Date	Secretary

(D+Ei) = Total Amount rounded up to nearest \$1,000 \$1,523,000 + \$65,000 = \$1,588,000

Total Amount -C = Total Fed. Participating \$1,588,000 - (\$3,000) = \$1,585,000

Total Fed. Participating X % Fed. Share = Fed. Fund Sharing $$1,585,000 \times .80 = $1,268,000$

Total Fed. Participating - Fed. Fund Sharing = STATE Fund Sharing \$1,585,000 - \$t,268,000 = \$317,000

ROUTE 80 SECTION 3A FEDERAL PROJECT NUMBER STP-000S(001) SUMMARY

Α,	RAW COST PARTICIPATING ITEMS (ROADWAY & BRIDGE ITEMS) FEDERAL PROJECT NUMBER STP-000S(001)	÷	\$5,000,000.00
В.	CONTRACT CONSTRUCTION ENGINEERING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	40,000.00
C.	TOTAL NON-PARTICIPATING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	2,000,000.00
D.	TOTAL CONTRACT ITEMS (A+B+C) FEDERAL PROJECT NUMBER STP-000S(001)	=	7,040,000.00
E.	TOTAL NON-CONTRACT CONSTRUCTION ENGINEERING (10% OF A) FEDERAL PROJECT NUMBER STP-000S(001)	=	500,000.00
E1.	PARTICIPATING CONSTRUCTION CONTINGENCIES	=	205,000.00
F.	ESTIMATED FEDERALLY PARTICIPATING COST (A+B+E+E1) FEDERAL PROJECT NUMBER STP-000S(001)	=	5,745,000.00
Ġ.	ESTIMATED PROJECT COST (C+F) FEDERAL PROJECT NUMBER STP-0005(001)	_	** 745 000 00
	LEPENHE INDUCES NUMBER SIF-0008(001)	=	\$7,745,000.00

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Date Date Date Date

APPROVED BY:_

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COMMISSIONER OF TRANSPORTATION

Schedule ______19

Action Certified

Secretary

Date

 $(\bar{D}+\bar{E}1)$ = Total Amount rounded up to nearest \$1,000 \$7,040,000 + \$205,000 = \$7,245,000

Total Amount - (0) = Total Fed. Participating \$7,245,000 - (\$2,000,000) = \$5,245,000

Total Fed. Participating X % Fed. Sharing = Fed. Fund Sharing $$5,245,000 \times .80 = $4,196,000$

Total Fed. Participating - Fed. Fund Sharing = State Fund Sharing \$5,245,000 - \$4,196,000 = \$1,049,000

ATTACHMENT 25

ROUTE BO SECTION 3A FEDERAL PROJECT NUMBER STP-000S(001) SUMMARY

Α.	RAW COST PARTICIPATING ITEMS (ROADWAY & BRIDGE ITEMS) FEDERAL PROJECT NUMBER STP-000S(001)	=	\$1,500,000.00
В.	CONTRACT CONSTRUCTION ENGINEERING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	20,000.00
C.	TOTAL NON-PARTICIPATING ITEMS FEDERAL PROJECT NUMBER STP-000S(001)	=	3,000.00
D.	TOTAL CONTRACT ITEMS (A+B+C) FEDERAL PROJECT NUMBER STP-000S(001)	=	1,523,000.00
E.	TOTAL NON-CONTRACT CONSTRUCTION ENGINEERING (10% OF A) FEDERAL PROJECT NUMBER STP-000S(001)	=	150,000.00
E1.	PARTICIPATING CONSTRUCTION CONTINGENCIES (FROM CONTINGENCY CHART)	=	65,000.00
E2.	PARTICIPATING PROPOSED CHANGE OF PLAN FEDERAL PROJECT NUMBER STP-0005(001)	=	50,000.00
F.	(A+B+E+ <i>E1+E2</i>)	=	1,785,000.00
G.	ESTIMATED PROJECT COST (C+F) FEDERAL PROJECT NUMBER STP-000S(001)	=	\$1,788,000.00

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FOR

COMMISSIONER OF TRANSPORTATION

Schedule ______19

Action Certified

Secretary

Date

APPROVED BY: _

Date

Date

(D+E1+E2) = TOTAL AMOUNT ROUNDED UP TO NEAREST \$1,000 \$1,523,000 + \$65,000 + \$50,000 = \$1,638,000.00

Total Amount - (C) = Total Fed. Participating \$1,638,000.00 - (\$3,000) = \$1,635,000.00

Total Fed. Participating X % Fed. Sharing = Fed. Fund Sharing \$1,635,000.00 (.80) = \$1,308,000.00

Total Fed. Participating - Fed. Fund Sharing = State Fund Sharing \$1,635,000.00 - \$1,308,000.00 = \$327,000.00

ROUTE 208 SECTION 3S FEDERAL PROJECT NUMBER BHF-NH-56(130) SUMMARY

Α.	RAW COST PARTICIPATING ITEMS (ROADWAY & BRIDGE ITEMS) FEDERAL PROJECT NUMBER BHF-56-(130)	=	\$1,136,897.00
В.	CONTRACT CONSTRUCTION ENGINEERING ITEMS FEDERAL PROJECT NUMBER BHF-56-(130)	=	18,475.00
C.	TOTAL NON-PARTICIPATING ITEMS FEDERAL PROJECT NUMBER BHF-56-(130)	=	0.00
D.	TOTAL CONTRACT ITEMS (A+B+C) FEDERAL PROJECT NUMBER BHF-56-(130)	=	1,155,372.00
E. *	TOTAL NON-CONTRACT CONSTRUCTION ENGINEERING (10% OF A) FEDERAL PROJECT NUMBER BHF-56-(130)	=	113,628.00
E1.	PARTICIPATING CONSTRUCTION CONTINGENCIES (FROM CONTINGENCY CHART)	****	50,500.00
F.	ESTIMATED FEDERALLY PARTICIPATING COST (A+B+E+E1) FEDERAL PROJECT NUMBER BHF-56-(130)	=	1,319,500.00
G.	ESTIMATED PROJECT COST BHF-56-(130) FUNDING (C+F)	=	\$1,319,500.00

* Amount is to be modified so that F. amount is rounded to lowest \$100.

ROUTE 208 SECTION 3S FEDERAL PROJECT NUMBER BHF-NH-56(130) SUMMARY

Α.	RAW COST PARTICIPATING ITEMS (ROADWAY & BRIDGE ITEMS) FEDERAL PROJECT NUMBER NH-56(130)	=	\$5,717,166.55
в.	CONTRACT CONSTRUCTION ENGINEERING ITEMS FEDERAL PROJECT NUMBER NH-56(130)	=	72,425.00
C.	TOTAL NON-PARTICIPATING ITEMS FEDERAL PROJECT NUMBER NH-56(130)	=	1,500.00
D.	TOTAL CONTRACT ITEMS (A+B+C) FEDERAL PROJECT NUMBER NH-56(130)	=	5,791,091.55
Ę. *	TOTAL NON-CONTRACT CONSTRUCTION ENGINEERING (10% OF A) FEDERAL PROJECT NUMBER NH-56(130)	=	571,608.45
E1.	PARTICIPATING CONSTRUCTION CONTINGENCIES (FROM CONTINGENCY CHART)	=	226,500.00
F.	ESTIMATED FEDERALLY PARTICIPATING COST (A+B+E+ <i>E1</i>) FEDERAL PROJECT NUMBER NH-56(130)	=	6,587,700.00
G.	ESTIMATED COST NH-56(130) FUNDING (C+F) FEDERAL PROJECT NUMBER NH-56(130) FUNDING	=	6,589,200.00
н.	ESTIMATED FEDERALLY PARTICIPATING COST F=(BHF-56-(130) FUNDING + F=(NH-56(130) FUND FEDERAL PROJECT NO. BHF-NH-56(130)	ING) =	7,907,200.00
I.	ESTIMATED PROJECT COST G=(BHF-56(130) FUNDING + G=(NH-56(130) FUNDI FEDERAL PROJECT NO. BHF-NH-56(130)	NG) =	\$7,908,700.00

* Amount is to be modified so that F. amount is rounded to lowest \$100.

NEW JERSEY DEPARTMENT OF TRANSPORTATION ATTACHMENT NO. 4A

Secretary

			DEPARTMEN	IT ACTION SLIP		•	
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		Funding BHF NH	Federal Fur Sharing 809 964,800.00 4,813,200.00	\$ Sharing 241,200	20% Part 0.00 00	<u>icipating</u> 0.00	Total 1,306,000. 6,016.500.
		ESTIMATED CON ESTIMATED CON TOTAL AMOUNT	TRACT AMOUNT TINGENCY AMOUNT	= \$6,947,000 T = + 277,000 = \$7,224,000).ÛŪ		
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Year & Item No.	. Construction Pro	Bergen an	Appropriation Account	No. (s) 442-73 (NH)		Job Na. (s)	Budget Code (s)
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BHF-NH-	56(130)	NATIONA HIGHWAY	L	\$5,778,00	0.00 80%	Cash \$	44;500. 00 2
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Date

BHF FUNDING

(D+E1) = TOTAL AMOUNT ROUNDED UP TO NEAREST \$1,000 \$1,155,372 + \$50,500 = \$1,205,872 = \$1,206,000

Total Amount - (0) = Total Federal Participating \$1,206,000 - 0 = \$1,206,000.00

TOTAL FEDERAL PARTICIPATING X % FEDERAL SHARING = FED. FUND SHARING \$1,206,000 X .80 = \$964,800.00

TOTAL FEDERAL PARTICIPATING - FED. FUND SHARING = STATE FUND SHARING \$1,206,000.00 - \$964,800.00 = \$241,200

NH FUNDING

(D+E1) = TOTAL AMOUNT ROUNDED UP TO NEAREST \$1,000 \$5,791,091.55 + \$226,500 = \$6,017,591.55 = \$6,018,000.00

TOTAL AMOUNT - (C) = TOTAL FEDERAL PARTICIPATING \$6,018,000.00 - (\$1500) = \$6,016,500.00

TOTAL FEDERAL PARTICIPATING X % FED. SHARING = FED. FUND SHARING $\$6,016,500.00 \times (.80) = \$4,813,200.00$

TOTAL FED. PARTICIPATING - FED. FUND SHARING = STATE FUND SHARING \$6,016,500.00 - \$4,813,200.00 = \$1,203,300.00

ATTACHMENT 4B

MEMORANDUM

TŌ:

Charles Takacs

Director of Roadway Design

FROM:

Robert K. Suess

Chief, Bureau of Roadway Plans and Specifications

DATE:

February 9, 1994

PHONE:

5-2574

SUBJECT:

Route 1. Sections 2X

Bid Analysis

Federal Project No. NH-33(100)

In the opinion of this office, the Low Bid of 4.48% (Estimate = \$1,214,362.75 vs. Low Bid = \$1,160,000.00) under the Engineer's Estimate is acceptable and it is recommended that the attached Department Action Slip be signed and the Contract awarded to the Low Bidder.

Contract Construction Contingencies in the amount of \$25,000.00 are requested.

Attachment

- cc: G. Kerwin
 - R. Stout
 - J. Wincek
 - D. Jones
 - A. Kuchtyak
 - S. Alu
 - J. Isler

RKS: SNA: rmf

ATTACHMENT NO. 5